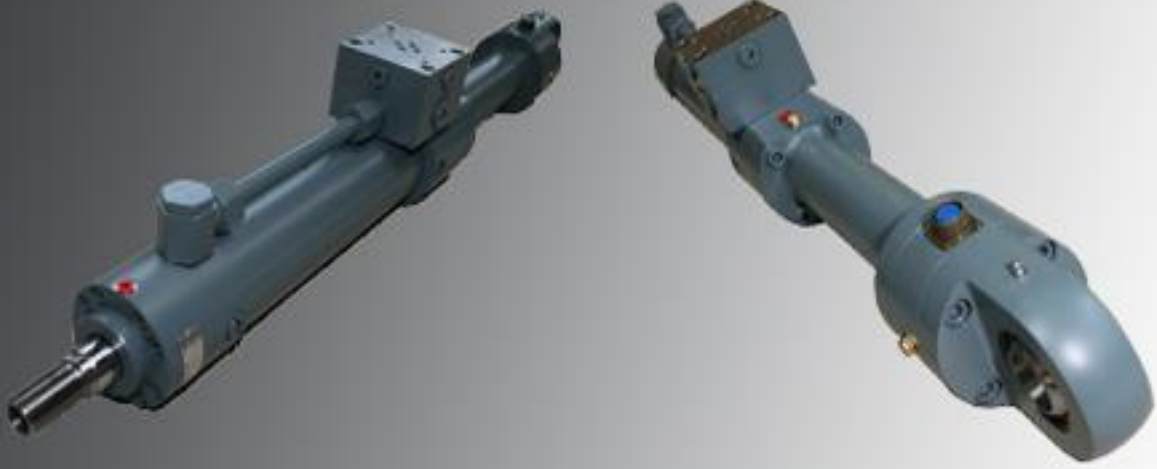# Hydraulic Cylinder for Highly Dynamic Applications

Hydraulic cylinders for high-quality industrial application are usually designed for piston speeds up to 0,5m per second.

The strains on seals and components are greater at a higher speed. Hydropneu developed special solutions for this application that guarantee a secure and durable service, even within a very demanding environment. A specific construction, highest material grades, and an extremely precise manufacturing process ensure a reliable and secure hydraulic drive with very high dynamics. Exceedingly precise guidance and the design of the sealing system together with a minimal friction prevent unwanted stick-slip-effects.

We individually respond to your requests in order to offer an efficient solution with the optimal cylinder for your specific application.

Precision in Motion

HYDROPNEU
partner for hydraulics
cylinders - drives - special solutions

Hydraulic Cylinder for Highly Dynamic Applications

Example:

This hydraulic cylinder is used in a test station for stabilizers within the automotive sector.

Technical Data:

Piston Diameter:	63 mm
Piston Rod Diameter:	36 mm
Stroke:	320 mm
Effective Stroke:	250 mm
Operating Pressure:	280 bar
Test Pressure:	375 bar
Operating Mode:	double-acting, double rod
End Position Cushioning:	adjustable on both sides
Guidance:	optimized for servo application
Seals:	servo quality is friction optimized
Piston Speed:	max. 2 m/s
Volume Flow:	max. 252 l/min
Frequency:	max. 35 Hz
Effective Force at 90% Efficiency:	53 KN
Path Detection System:	5KHz, Linearity +/- 0,25%

Additional Features:

- Piston rod deep-hole drilled in one-piece
- Spherical bearing for highly dynamic application
- Valve block for direct setup of a servo valve
- Attachment of two pressure accumulators for the absorption of pressure peaks prepared

HYDROPNEU
highly dynamic cylinder:

- Low friction
- Avoidance of stick-slip-effects
- Very good responsiveness
- High frequencies
- Long durability
- Individually coordinated with operating conditions
- Adjustment to various valve types
- Path detection system from several producers
- High-quality add-on components